



August 2021

National Center for Biotechnology Information (NCBI)
National Library of Medicine (NLM)
National Institutes of Health (NIH)

A postdoctoral fellow position is available in the Dr. Zhiyong Lu's research group (<https://www.ncbi.nlm.nih.gov/research/bionlp/>) at the National Library of Medicine (NLM) Intramural Research Program, starting in late 2021/2022. Dr. Lu's laboratory is primarily interested in developing and applying computational approaches to biomedical text data, as well as medical images in recent years. Our research has focused on: i) Improving information access to biomedical literature (e.g. PubMed [1]; LitCovid [2]); ii) Text mining assisted knowledge discovery & biocuration (e.g. PubTator [3]; BioCreative challenge series [4]), and iii) Machine learning for EHR & medical image analysis (e.g. ChestX-ray8 [5]; DeepSeeNet [6]).

The successful applicant will build and apply new methods to such research problems, and have the opportunity to contribute to the improvement of the widely used NLM literature resources such as PubMed and PMC. In addition to informatics training, the person would also have access to our (clinical) collaborators for their domain expertise.

- [1] How user intelligence is improving PubMed. *Nat Biotechnol.* 2018
- [2] Keep up with the latest coronavirus research. *Nature.* 2020
- [3] PubTator: a web-based text mining tool for assisting biocuration. *Nucleic Acids Res.* 2013, 2019
- [4] BioCreative: <https://biocreative.bioinformatics.udel.edu>
- [5] ChestX-ray8: Hospital-scale Chest X-ray Database and Benchmarks on Weakly-Supervised Classification and Localization of Common Thorax Diseases. *CVPR* 2017
- [6] DeepSeeNet: A Deep Learning Model for Automated Classification of Patient-based Age-related Macular Degeneration Severity from Color Fundus Photographs. *Ophthalmology.* 2019

Qualifications: Applicants must have training with a strong emphasis on computation and familiarity with NLP & statistical methods in data and text mining, machine learning, and/or computer vision. A PhD degree or equivalent in biomedical informatics, computer science, or a closely related field is required. Strong programming and data analysis skills are essential. Applicants need not be US citizens or Permanent Residents.

Appointments are initially for two years, with the option of extension based on performance. Stipends are commensurate with research experience and education.

To apply: please submit your curriculum vitae and the names of three referees to Dr. Lu at Zhiyong.Lu@nih.gov or at the address below. Applications will be evaluated as they are received until the position is filled.

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Selection for this position will be based solely on merit, with no discrimination for non-merit reasons such as race, color, religion, sex, sexual orientation, national origin, politics, marital status, physical or mental handicap, age, or membership or non-membership in an employee organization. Applications will be reviewed upon receipt and selected candidates will be contacted for an interview.

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